

MAR 18 1957

U. S. Department of Agriculture

**WINROCK GRASS FARM**

PETIT JEAN MOUNTAIN • MORRILTON, ARKANSAS

PLANTING DIRECTIONS**GENERAL INFORMATION**

WINROCK (Meyer Z-52) Zoysia is a recently developed hybrid lawn grass. It comes from mattrella and japonica zoysia both introduced from the Orient. It is the result of years of breeding and experimental work by the United States Department of Agriculture. Being a hybrid it can only be produced from sprigs or plugs. There are no fertile seed. The grass produces a thick resilient turf that is remarkably resistant to hard use, drought, hot weather, disease, insects, and once established it is permanent and requires less care, less water, less mowing than most grasses. It grows in most soils and has a lovely texture and color. It is almost ideal for home lawns and is particularly suited for playgrounds, athletic fields, tourist courts, parks, public buildings, golf tees and fairways, and airports where it may receive constant wear. The sign on your lawn with this grass can be "Walk on This Grass". Once fully established it will choke out most other grasses and weeds.

GROWING CONDITIONS

Winrock Zoysia will grow well in most soils but of course grows faster where there is several inches of top soil. It is a warm weather grass. In the extreme south it is green most of the year; in the midsouth it is green eight or nine months; in the upper south it is green from April to October; it does well along the Atlantic Seaboard as far north as lower New England; most of the Pacific Coast is suitable for the grass; in the north it does well in hot summers but does not do well in areas having cool moist summers.

CARE OF YOUR WINROCK ZOYSIA IF YOU CANNOT PLANT WHEN RECEIVED. Although we advise planting soon after arrival, this may be impossible. Our patented processing and packing will enable you to keep your grass for a limited time. Place bag in your home refrigerator. The grass will keep fresh and viable for at least four weeks. Keep polyethylene

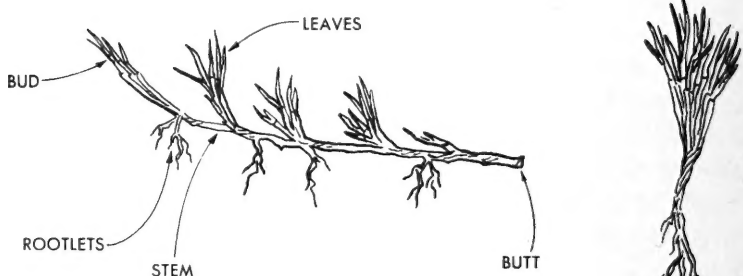
bag tightly tied. A part can be planted as your schedule permits and the rest stored. Do not separate the mat into runners until ready to plant. If your order is too large for your refrigerator, store as directed above in a commercial refrigerator plant in the cool-room which is about 40 degrees.

RATE OF COVERAGE

The rate of coverage of Winrock Zoysia depends on: (a) the distance apart the rows of grass are planted and the spacing of the sprigs in the row; (b) the length of the growing season in your area; (c) proper planting, watering and feeding; (d) competition present from other grasses and from weeds. It grows much faster from sprigs than from plugs and from sprigs a much larger area may be planted for the same cost.

DO IT YOURSELF WITH YOUR OWN ZOYSIA NURSERY

You may plant a part of your lawn with Zoysia the first year and during the second season extend your coverage to your entire lawn from grass you have grown. Your initial order of \$10.00 worth of bare-root runners will plant over 100 square feet, in rows eight inches apart, sprigs planted end to end. In one year you will then have enough sprigs to plant over 7,000 square feet. In planting your nursery follow planting directions for new lawns below except plant in rows eight inches apart with the sprigs end to end in the row. After your nursery is mature, you transplant to your lawn as directed in Section 2 below. If you wish, you may cut and transplant plugs, although plugs grow slower.



SPRIG OR STOLON OF MEYER Z-52 ZOYSIA

ILLUS. NO. 1

STRAIGHT SPRIG

PLANTING INSTRUCTIONS

Section 1

NEW LAWNS

The instructions which follow apply to lawns being put in the first time around a new house or when you are completely replacing your old lawn by taking out the existing grass and starting over.

1. PREPARATION OF THE LAND. Deep and thorough preparation of the soil is necessary to establish a good lawn. The ground should be spaded or plowed so the roots can grow deep. In general the soil should be prepared as for a vegetable garden.

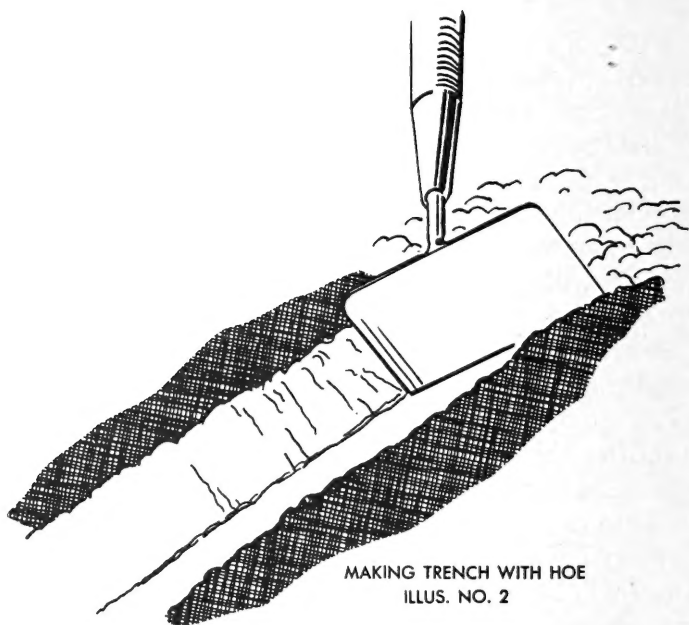
Before planting apply 5 pounds of a complete fertilizer such as 5-10-5 or 6-8-4 per 100 square feet. Scatter the fertilizer with a small spreader or by hand across the area first in one direction and then in the other. Work fertilizer into the soil with a rake or other tool.

2. WHEN TO PLANT. A Winrock Zoysia lawn may be started any time during the growing season up to a month before the first freeze provided adequate moisture is available regularly during the period of establishment. During the first month the surface soil must be kept moist till the roots take hold. Summer and fall are as good as spring because grasses make considerable growth before and during the winter and receive the benefits of fall and winter rains and are ready for immediate growth when spring comes.

3. PREPARATION OF GRASS FOR PLANTING. When you are ready to plant your Winrock Zoysia take it out of the bags, soak it in cool water for two hours. Drain off the water and pull the matted grass apart into individual sprigs or strands. This is best done by working the mat with your hands until it loosens and the roots begin to separate and give. The individual sprigs will then pull apart easily. As you pull the sprigs from the mat place them in a bucket of water and plant them direct from the water. (Illustration No. 1 shows shapes of sprigs with parts labeled).

4. MARKING ROWS AND PLANTING. Stretch a cord across one end of the area to be planted. With a hoe dig a trench along the cord about 4 inches deep. (See illustration 2). Start planting at one end of the trench, laying the growing end on the shoulder formed by the end of the trench. Leave the bud-like growing end exposed along with some of the longer blades which come up from the main root. **DO NOT COVER THE SPRIGS COMPLETELY.** (See illustration 3). Hold the base of the sprig firmly in the bottom of the trench and cover with dirt, packing firmly that part of the sprig and roots to be covered. The growing end or bud is the pale end. The blades growing up from the main root slant toward this growing end. (See illustration 1). Continue to plant the sprigs along the row resting the growing end on the shoulder formed by covering the preceding sprig. In separating the grass into sprigs you will break off some growing ends and there will be some small straight pieces with roots. Plant these sprigs leaving exposed the

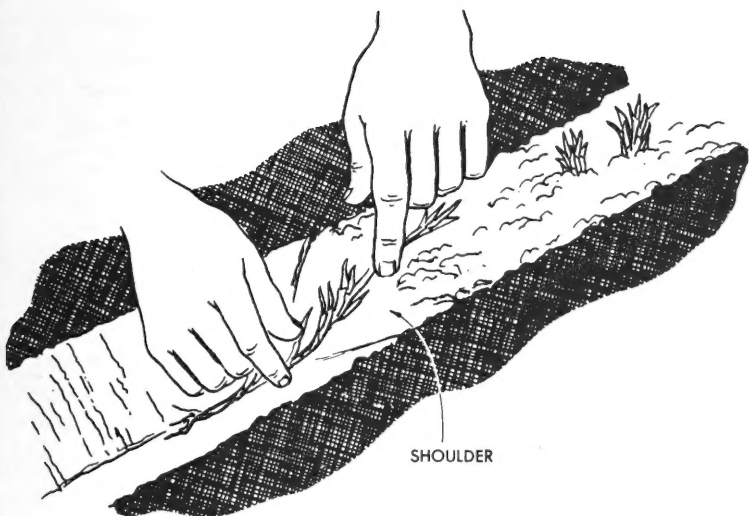
end from which the growing end was broken. Plant the straight pieces root down leaving the blades exposed. (See illustration 4). When you have planted one row move your cord, make another trench and repeat the operation until you have planted your area. We recommend planting in rows 12 inches apart with the sprigs spaced 4 to 6 inches in the row. For more rapid coverage, plant the sprigs continuous, i. e., end to end in the row.



MAKING TRENCH WITH HOE
ILLUS. NO. 2

5. WATERING. Watering is the maintenance practice most often done incorrectly. Immediately after planting you should soak the area. A gentle spray is best. Be sure all the sprigs are well wet. The ground should be kept moist for a month while the roots are taking hold. Once growth has thoroughly started your watering should take a different pattern. When there is no rain, water thoroughly once every week or ten days. This should be a good soaking of about two hours with a sprinkler. Frequent light watering does more harm than good. It encourages weeds and crab grass more than it does the Zoysia and encourages shallow root growth rather than desired deep root growth. The lawn should be watered in the late afternoon, at night or early in the morning. Watering in the hot part of the day wastes water by a high percentage of evaporation. Your good soil preparation will pay off in better absorption of water.

6. FERTILIZING DURING GROWING SEASON. Probably more lawns are in poor condition for want of



SETTING ZOYSIA SPRIGS
ILLUS. NO. 3

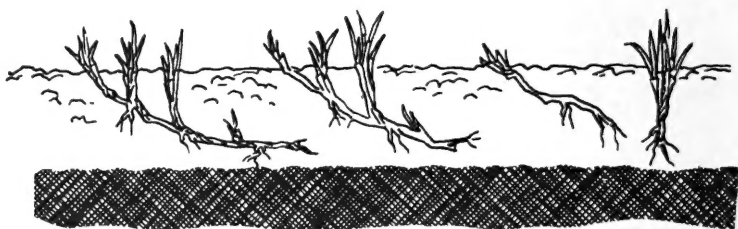
fertilizer than for any other reason. Your Winrock Zoysia should be fertilized a month after planting and every six weeks thereafter during the growing season. Use $\frac{1}{4}$ pound of ammonium nitrate per 100 square feet. Such fertilizer as 6-8-4 may also be used, applying 1 pound per 100 square feet. Either may be applied with a small spreader or by hand sowing. Water with sprinkler after applying to keep from burning the blades.

7. MOWING. Your Zoysia will not need mowing for six weeks. It should be mowed about $1\frac{1}{2}$ to 2 inches high. It will require one-third less mowing than most grasses.

8. WINTER GRASS IN ZOYSIA. Winter grass is successfully grown in Zoysia in many areas. Merion blue grass is recommended for some areas by the U. S. D. A. Rye grass, Kentucky blue grass, white Dutch clover and some of the fescues have been used. We advise you to consult your county agent or state University Agricultural Experiment Station and follow their advice.

9. WINROCK ZOYSIA AND SHADE. Nearly everyone has had trouble growing grass in shade. Most articles by technical experts rate it very high in its tolerance of shade. Trees present problems that are not easy to solve. Competition under trees for the available moisture and soil foods, the shading effect of leaves, the smothering effect on the turf of fallen leaves, are some of the problems. The Department of Agriculture says these problems may be minimized. Deep application of fertilizer around the trees and heavy application to the turf compensate for the competition of roots and turf for food. Planting shade

tolerant grass like Zoysia is recommended. Prompt raking of leaves is urged. Force all the growth possible while the leaves are off the trees. The Alabama agricultural experiment station found Zoysia will stand more dense shade than any other grass tested.

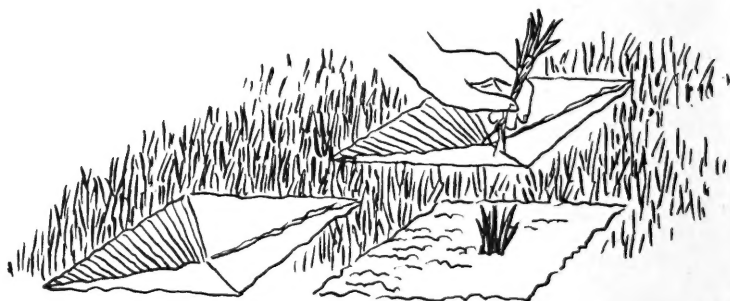


CROSS SECTION OF ZOYSIA SPRIGS PLANTED IN TRENCH
ILLUS. NO. 4

Section 2. PLANTING ZOYSIA IN EXISTING LAWNS

You may plant your Zoysia successfully in your existing lawn. In two or more growing seasons depending on care and location Zoysia will gradually crowd out other grasses and take over your lawn. It grows much slower in stiff competition against other rapid growing grasses but since it stands heat and drought better it will take over.

NOTE.—Sprigs planted correctly should not lose their greenness if kept moist. If they do turn brown, do not worry, this does not mean that they are dead as the underground roots carry the life of the plant. New blades will push through in four to six weeks.



PLANTING ZOYSIA SPRIGS IN EXISTING LAWN
ILLUS. NO. 5

1. Mow your existing lawn.
2. With a spade or mattock cut a section of turf and dirt six to twelve inches square and eight inches deep out of your lawn. (See illustration 5). Shake the dirt from the sod back in the hole and add more dirt to fill level with the lawn if necessary. Work the dirt in the hole with a spade or other tool till it is

thoroughly loose and well broken up. Mix into this bed a heaping teaspoon of 5-10-5 fertilizer. Smooth the surface. With a trowel or hoe dig a row across the bed about four inches deep. Plant Zoysia sprigs just as directed in section 1 paragraph 4 above, except plant about double the number of sprigs in the six or twelve-inch row.

4. Stagger these beds through your lawn like a checker board and repeat the planting as directed above. (See illustration 5).

5. Water immediately after planting. Keep well watered for three weeks until the grass has taken root.

6. During the first growing season, or until the Zoysia has covered these square areas, keep other grasses and weeds from growing. This may be done at first by using a hoe, just scraping the surface. Later, it is best to pull them out by hand. You can use your hoe to keep the grass from surrounding lawn from crowding in. Once the Zoysia has covered this area, it will gradually spread into the surrounding grass until it takes the whole lawn. By helping it against its well started competition, you will greatly speed the Zoysia growth.

7. A month after planting, and each six weeks thereafter fertilize the Zoysia with Ammonium Nitrate. Do not put fertilizer on your old grass, just on the Zoysia. Just scatter a little fertilizer over your growing Zoysia and water immediately.

8. MOWING. If you mow your present lawn before planting, it will probably not be necessary to mow for two weeks. You may, however, mow any time after planting the Zoysia, but set the mower at about 1½ to 2 inches.

9. WATERING AFTER FIRST MONTH. Follow directions given in section 1, paragraph 5, above.

Section 3

PLANTING WINROCK M-1 ZOYSIA AND WINROCK EMERALD ZOYSIA

Follow same directions given for planting Meyer Z-52.

Section 4

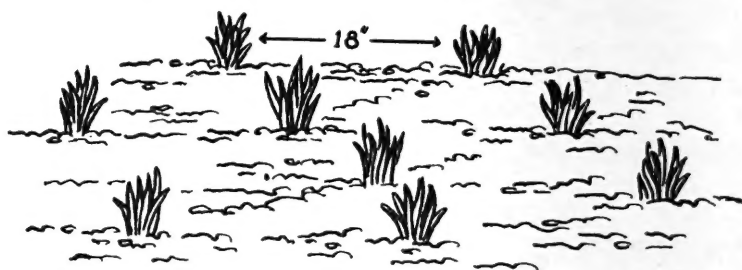
PLANTING TIFFINE BERMUDA

1. In preparing land for planting follow directions given for Winrock Zoysia under Section 1 New Lawns.

2. Your Tiffine will arrive as a bare root mat. DO NOT SEPARATE THIS MAT INTO SPRIGS. With a pair of shears cut a strip 2 inches wide the length of the mat. Cut this strip into 2-inch squares.

3. Plant 2-inch squares in rows 12 to 18 inches apart pressing the dirt tightly around the roots but leaving the blades exposed. Clumps should be staggered as shown in illustration No. 6.

4. In caring for your Tiffine lawn, follow the instructions given above under Zoysia.



TIFFINE PLANTED IN CLUMPS ON NEW LAWN
ILLUS. NO. 6

5. Tiffine grows very fast and, planted as above, will cover in 60 days. It makes a lush green lawn and is excellent for lawns and golf greens. It requires more water and care than Zoysia but is far superior to common Bermuda. It will not crowd out common Bermuda and we do not recommend planting it in existing lawns. Since it covers in 60 days in warm areas it's much better to plant a new lawn. Keep weeds and other grasses pulled out while it is covering.

